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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/996,108	11/28/2001	Johan Loccufier	27500-11	2519

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EXAMINER

FLETCHER III, WILLIAM P

ART UNIT	PAPER NUMBER
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1762

DATE MAILED: 07/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/996,108	Applicant(s) LOCCUFIER ET AL.	
	Examiner William P. Fletcher III	Art Unit 1762	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 May 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 5, 16 and 32 is/are allowed.
- 6) ☒ Claim(s) 1-4, 6-15, 17-31 and 33-36 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments, see the amendment and response filed 5/10/2004, with respect to the rejection of claims 1-20 under 35 U.S.C. § 112, 1st Paragraph set-forth in the Office action mailed 2/25/2004, have been fully considered and are persuasive. Applicant has amended independent claims 1, 11, and 12 to remove the limitation lacking written description and replace it with a limitation fully supported by the originally filed disclosure. The rejection of these claims has been withdrawn. Further, in view of applicant's amendment, claim 32 is now allowable. Consequently, the objection to this claim, set-forth in the above-identified Office action is also withdrawn.

2. Applicant's arguments filed 5/10/2004, with respect to the rejections under 35 U.S.C. § 103(a), set-forth in the above-identified Office action, have been fully considered but they are not persuasive.

Applicant's analysis of the Leenders-Boston combination is noted. This combination requires the application of the amidine-containing compound to the silver image, previously printed atop various lithographic printing plate supports and coated supports. Applicant contends that the claims require *direct* application of the amidine-containing compound to the *support*; as evidenced by the limitation "...capable of reacting with said surface of said lithographic receiver...". The examiner disagrees.

A limitation reciting that the amidine compound is *capable* of reacting with the surface of the receiver is not the same as a limitation *actively reciting* "*reacting*" said compound with said surface. The claims are open to either direct or indirect application of the amidine compound to

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the surface of the support. With respect to indirect application, because the amidine compounds taught by Boston are the same as those disclosed by applicant, it is the examiner's position that they are inherently *capable* of reacting with the support even if the two are never brought together in such a way that they are able to react. This position has been explained at length in prior actions. With respect to direct application, it is the examiner's position that the silver-imaged support of Leenders reads on a "metallic surface" as required in amended claims 1, 11, and 12 (i.e., silver is a metal). From the disclosure of Boston, the amidine compound reacts directly with this silver image to oxidize/fix it, thereby rendering it oleophilic.

Consequently, it is clear that the Leenders-Boston combination reads on both direct and indirect application of the amidine compound to the support with the amidine compound either inherently capable of (in the case of indirect application) or actually (in the case of direct application) reacting with the support. Since these are the only two possibilities encompassed by applicant's claim language, this combination clearly renders the claims obvious.

Insofar as the particulars of the reaction is important, the examiner again maintains that the nature and extent of this reaction is not disclosed. The examiner has reviewed the working example cited by applicant. From this example, it appears that ink uptake is the only indicator that a reaction has taken place. Since the Leenders-Boston combination clearly teaches ink uptake (i.e., the plate produced according to this combination has oleophilic areas suitable for lithographic printing), this combination renders this more narrow definition of reaction obvious.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it

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pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. **Claims 33-36 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.**

These newly-added claims recite "...said surface being a hydrophilic layer on a flexible support...". The originally-filed disclosure does not support any and all hydrophilic supports, disclosing, at p. 15 of the spec., only *cross-linked* hydrophilic supports. Possession of a species does not support possession of a genus. The second paragraph at p. 15 of the spec. states "According to another mode in connection with the present invention the lithographic base with a hydrophilic surface comprises a flexible support, such as e.g. paper or plastic film, coated with a cross-linked hydrophilic layer." While this sentence appears to refer back to a previous disclosure of a hydrophilic support ("According to another mode...the lithographic base with a hydrophilic surface..."), there is, in fact, no such disclosure. The only embodiment supported by the originally-filed disclosure is of a cross-linked hydrophilic surface.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

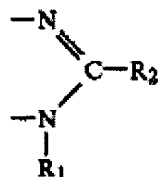
7. **Claims 1 – 4, 6 – 15, and 17 – 31, 33, and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Leenders et al. (US 5,501,150 A) in view of Boston (US 4,223,087 A).**

Leenders teaches a method for the preparation of a lithographic printing plate. The method comprises forming a silver image on a lithographic receiver, followed by oleophilizing the silver image by applying a compound that both oxidizes and fixes the silver image [abstract and c. 8, l. 58 – c. 9, l. 22]. The lithographic receiver may either be a grained and anodized aluminum plate (i.e., a metallic support) or a support with a hydrophilic receiving layer thereon containing SiO₂ or TiO₂ therein [c. 9, l. 34 – c. 10, l. 60 and c. 10, l. 61 – c. 11, l. 40]. The lithographic oxidizer/fixer imparts a strong hydrophobic (i.e., oleophilic) character to the oxidized silver image, and is applied image-wise by means of ink-jet printing [c. 8, l. 58 – c. 9, l. 22].

While Leenders teaches that the lithographic oxidizer/fixer comprises organic compounds with groups including HS-C=N and S=C-NH, the reference does not, explicitly, teach the amidine group-containing compounds recited in claims 1, 11, and 12.

Boston teaches a method for the preparation of a lithographic printing plate very similar to that of Leenders. The method comprises forming a silver image on a lithographic receiver, followed by oleophilizing the silver image by applying a compound that both oxidizes and fixes the silver image [abstract and c. 3, l. 22 – c. 4, l. 64]. The lithographic receiver is a support with a hydrophilic receiving layer thereon [see Examples]. The oxidizer/fixer comprises a salt solution of a ferricyanide anion and organic cation complexing agent [c. 3, l. 22 – c. 4, l. 66]. The ferricyanide anion serves to oxidize the silver image while the organic cation forms a water-insoluble, oleophilic complex with the oxidized silver image. Examples of the cation include cyclic and acyclic amidines defined at c. 4, ll. 29 – 66 as:

Examples of nitrogen-substituted hydrocarbon compounds include cyclic and acyclic amidines, i.e., compounds having the formal chemical grouping:



wherein R₁ and R₂ may be hydrogen, hydrocarbons, or nitrogen-substituted hydrocarbons in any of the classes, alkyl, aryl, or aralkyl, and where cyclic or ring-structured amidines are completed by hydrocarbon groups to provide 5- or 6-membered ring structures. Exemplary acyclic amidines include acetamidine, benzamidine, guanidine and biguanide. Typical cyclic amidines include 2-propyl-2-imidazoline, 2-pentyl-2-imidazoline, 2-benzyl-2-imidazoline and naphthazoline.

Further examples of suitable complexing agents include aromatic nitrogen-substituted heterocyclic aromatic compounds, such as 5- and 6-membered cyclic or bicyclic compounds containing one or more nitrogen atoms therein, including mono-substituted or poly-substituted hydrocarbon or nitrogen functional hydrocarbon derivatives thereof. Exemplary aromatic heterocyclic compounds include 2-methylimidazole, 1-benzylimidazole, 1-butylimidazole, 2-undecylimidazole, 2,2'-dipyridylamine, 2,4-lutidine, pyridine, and N-aminopyridine. Bicyclic compounds include benzimidazole, 2-methylbenzimidazole, 1-ethyl-2-methylbenzimidazole.

The aromatic nitrogen heterocyclic compounds should all contain at least one nitrogen atom in the parent ring structure which is sterically unhindered, so as to be capable of coordination to a silver ion, i.e., capable of forming a chemical bond therewith.

R1 and R2 in Boston are analogous to applicant's R3 and R4, respectively. With respect to claim 11, it is the examiner's position that this teaching reads on several of the compounds recited in this claim. See, for example, the last compound on p. 7 of paper no. 10. Here, R3 is

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nitrogen-substituted hydrocarbon and R4 is a hydrocarbon. With respect to claim 12, it is the examiner's position that this teaching reads on compounds where R3 and R4 are aryl.

To summarize: Leenders teaches a method of manufacturing a printing plate in which an oxidizing/fixing solution is applied, image-wise, via ink-jet printing to a silver image. This oxidizing/fixing solution contains both hexacyanoferrate(III) ions and organic compounds containing NH-groups. Boston teaches a similar method in which an oxidizing/fixing solution is specified to include $[\text{Fe}(\text{CN})_6]^{3-}$ ions and an amidine compound as recited in applicant's claims. Since both references disclose utilizing the oxidizing/fixing solutions in the same fashion to the same end, it would have been obvious to one of ordinary skill in the art to modify the method of Leenders so as to apply, image-wise via ink-jet printing, as the oxidizing/fixing solution, the oxidizing/fixing solution of Boston. One of ordinary skill in the art would have been motivated to do so by the desire and expectation of successfully rendering the lithographic printing plate oleophilic.

With respect to independent claims 1, 11, 12, and 21, the silver image-coated support reads on either indirectly applying the oleophilizing compound to the anodized aluminum support or directly applying the oleophilizing compound to a metallic support (i.e., silver is a metal); both of which are encompassed by the claims language.

With respect to new claims 33 and 35, the silver image-coated support reads on applicant's claimed hydrophilic support. Since the oxidizing/fixing solution is applied to the silver image to render it oleophilic the silver image must, necessarily, be hydrophilic prior to said oxidizing/fixing.

With respect to independent claim 1, the oxidizing/fixing solution (which reads on applicant's "fluid") has dissolved therein the amidine-containing organic cation (which reads on applicant's "oleophilizing compound"). The examples of this cation described in the passage above are clearly inclusive of cations with a single amidine group.

With respect to new independent claim 21, the language of this claim is broad enough to include the fluid's being *directly* and *indirectly* dispensed on the surface of the support. In other words, "onto a surface of a metallic support" is inclusive of dispensing the oxidizing/fixing solution onto the silver-image coated, grained and anodized aluminum support. Consequently, Leenders in view of Boston teaches this limitation as well. The examiner further notes that the silver coating itself is also considered to read on "the surface of a metallic support."

With respect to new independent claim 28, as noted above, insofar as the fluid is used to print a pattern on the receiver, this fluid reads on an "ink."

With respect to claims 4, 15, 26, and 31, Boston teaches a specific example in which the amidine-containing compound is added in an amount of approximately 17 % by weight based on the total solids content of the oxidizing/fixing solution [c. 6, ll. 30 – 40]. It is, however, the examiner's position that the amount of fixing cation in the solution is a result-effective variable determining the resulting oleophilicity of the plate. Absent clear and convincing evidence demonstrating the criticality of the claimed wt.-% range, it would have been obvious to one of ordinary skill in the art to optimize such a result-effective variable in the method of Leenders in view of Boston by routine experimentation. [See MPEP § 2144.05(II)(A): Generally, differences in concentration will not support the patentability of subject matter encompassed by the prior art unless there is evidence indicating such concentration is critical. "[W]here the general

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conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation. See also MPEP § 716.01(c): the arguments of counsel cannot take the place of evidence in the record. Examples of attorney statements which are not evidence and which must be supported by an appropriate affidavit or declaration include statements regarding unexpected results.]

With respect to claims 6, 7, 17, 18, and 23, the language of these claim is broad enough to include the fluid's being *directly* and *indirectly* dispensed on the surface of the support. In other words, "onto a surface of a metallic support" is inclusive of dispensing the oxidizing/fixing solution onto the silver-image coated, grained and anodized aluminum support. Consequently, Leenders in view of Boston teaches this limitation as well. The examiner further notes that the silver coating itself is also considered to read on "the surface of a metallic support," because silver is a metal. With respect to claim 22, it is the examiner's position that the grained and anodized aluminum support reads on applicant's claimed "oxidized" support. The examiner notes that applicants disclose such a support as reading on an "oxidized" support at p. 15 of the sub. spec. filed 12/16/02.

With respect to claims 9, 10, and 20, it is the examiner's position that SiO₂ and TiO₂ read on inorganic pigments.

With respect to claims 8 and 19, it is the examiner's position that the binders taught by Leenders, at c. 11, ll. 3 – 34, read on cross-linked or cross-linkable binders.

Allowable Subject Matter

8. Claims 5, 16, and 32 are allowed.

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9. The following is a statement of reasons for the indication of allowable subject matter: Neither Leenders nor Breton teach or suggest an oxidizing/fixing solution that contains a colorant..

Conclusion

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William P. Fletcher III whose telephone number is (571) 272-1419. The examiner can normally be reached on Monday through Friday, 9 AM to 5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shrive P. Beck can be reached on (571) 272-1415. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

WPF 7/20/2004

William P. Fletcher III
Examiner
Art Unit 1762

B. Chen

BRET CHEN
PRIMARY EXAMINER